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May 22, 2000

Dr. Joshua Lederberg  
The Rockefeller University  
1230 York Avenue  
New York, NY 10021-6399

Dear Dr. Lederberg:

Thank you very much for your interest in our work on hormesis. I am enclosing a package of articles that I hope you will find of interest, especially the recent issue of *Human and Experimental Toxicology* which contains our historical assessment of hormesis and the evolution of the dose-response. In addition to the work included we have been evaluating the occurrence of similar biphasic responses in pharmacological systems and find it to be extremely common. In fact, we have obtained substantial information on approximately 30 receptor systems, which display such biphasic dose-responses where the mechanism is known for the basis of this response, at least at the level of receptor and frequently with further detail. It is my belief that many of these receptor systems are using concentration gradients of endogenous agonists as a means to regulate biological activity. We have developed manuscripts in these areas, exploring this relationship to the hormesis phenomenon and hopefully I will be able to send you these once they are finalized.

I would look forward to hearing from you concerning these developments. I will also try to track down the other references that you indicated.

Sincerely,

A handwritten signature in black ink, appearing to be 'EJ Calabrese', with a stylized 'd' or 'l' to the right.

Edward J. Calabrese, Ph.D.  
Professor of Toxicology  
Director of the Northeast Regional  
Environmental Public Health Center

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